

In the Claims:

Please cancel claim 6. Please amend claims 2-3, 7, 28, and 30. Please add new claims 37-41. The claims are as follows:

1. (CANCELED)

2. (CURRENTLY AMENDED) An electronic structure, comprising:

a substrate;

a first circuit line including a first portion and a second portion, wherein the second portion of the first circuit line consists of a first conductive pad, wherein the first portion of the first circuit line has and having a first thickness extending in a direction perpendicular to a surface of the substrate, wherein the first circuit line is in direct surface-to-surface contact with the surface of the substrate, and wherein the first circuit line is totally external to the an interior of the substrate, and wherein the first circuit line does not consist essentially of the first conductive pad; and

a second circuit line including a first portion and a second portion, wherein the second portion of the second circuit line consists of a second conductive pad, wherein the first portion of the second circuit line has and having a second thickness extending in the direction perpendicular to the surface of the substrate, wherein the second circuit line is in direct surface-to-surface contact with the surface of the substrate, wherein the second circuit line is electrically coupled to the first circuit line, wherein the second thickness is unequal to the first thickness, wherein the second circuit line is totally external to the interior of the substrate, and wherein the first circuit

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line physically touches the second circuit line in direct surface-to-surface contact; ~~and wherein the second circuit line does not consist essentially of the second conductive pad.~~

3. (CURRENTLY AMENDED) An electronic structure, comprising:

a substrate;

a first circuit line including a first portion and a second portion, wherein the second portion of the first circuit consists of a first conductive pad, wherein the first portion of the first circuit line has and having a first thickness extending in a direction perpendicular to a surface of the substrate at which the first circuit line is coupled to the substrate, and wherein the first circuit line is totally external to the an interior of the substrate and is in direct surface-to-surface contact with the substrate; ~~and wherein the first circuit line does not consist essentially of the first conductive pad;~~

a second circuit line including a first portion and a second portion, wherein the second portion of the second circuit line consists of a second conductive pad, wherein the first portion of the second circuit line has and having a second thickness extending in a direction perpendicular to a surface of the substrate at which the second circuit line is coupled to the substrate, wherein the second circuit line is electrically coupled to the first circuit line, wherein the second thickness is unequal to the first thickness, and wherein the second circuit line is totally external to the interior of the substrate and is in direct surface-to-surface contact with the substrate; ~~and wherein the second circuit line does not consist essentially of the second conductive pad;~~ and

a third circuit line coupled to the substrate, wherein the third circuit line has a third thickness that is unequal to both the first thickness and the second thickness, wherein a portion of

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the third circuit line is electrically coupled to a portion of the first circuit line, wherein a portion of the third circuit line is electrically coupled to a portion of the second circuit line, wherein the third thickness extends in a direction perpendicular to a surface of the substrate at which the third circuit line is coupled to the substrate, and wherein the third circuit line is totally external to the interior of the substrate and is in direct surface-to-surface contact with the substrate; ~~and wherein the third circuit line does not consist essentially of a conductive pad~~

4. (PREVIOUSLY PRESENTED) The electronic structure of claim 2, wherein an end of the first circuit line includes the first conductive pad, and wherein an end of the second circuit line includes the second conductive pad.

5. (PREVIOUSLY PRESENTED) The electronic structure of claim 2, further comprising a protective coating that covers a portion of a circuit line, wherein the circuit line includes the first circuit line and the second circuit line.

6. (CANCELED)

7. (CURRENTLY AMENDED) ~~The electronic structure of claim 6~~ An electronic structure, comprising:

a substrate;

a first circuit line including a first portion and a second portion, wherein the second portion of the first circuit line consists of a first conductive pad, wherein the first portion of the

first circuit line has a first thickness extending in a direction perpendicular to a first surface of the substrate, wherein the first circuit line is in direct surface-to-surface contact with the first surface of the substrate, and wherein the first circuit line is totally external to an interior of the substrate;
and

a second circuit line including a first portion and a second portion, wherein the second portion of the second circuit line consists of a second conductive pad, wherein the first portion of the second circuit line has a second thickness extending in the direction perpendicular to a second surface of the substrate, wherein the second circuit line is in direct surface-to-surface contact with the second surface of the substrate, wherein the second circuit line is electrically coupled to the first circuit line, wherein the second thickness is unequal to the first thickness, wherein the second circuit line is totally external to the interior of the substrate, wherein said electrical coupling of the second circuit line to the first circuit line includes a plated through hole (PTH), wherein a portion of the first circuit line is coupled to a first end of the PTH, and wherein a portion of the second circuit line is coupled to a second end of the PTH, and wherein the PTH is uncovered at both the first end of the PTH and the second end of the PTH.

8. (CANCELED)

9. (PREVIOUSLY PRESENTED) The electronic structure of claim 2, further comprising:

- a first solder ball coupled to the first conductive pad;
- an electronic assembly coupled to the first solder ball;
- a second solder ball coupled to the second conductive pad; and

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an electronic carrier coupled to the second solder ball.

10. (ORIGINAL) The electronic structure of claim 9, wherein a diameter of the second solder ball is unequal to a diameter of the first solder ball.

11. (PREVIOUSLY PRESENTED) The electronic structure of claim 2, wherein the first conductive pad includes a metallic layer, and further comprising:

- a first metallic coating over the metallic layer; and

- a second metallic coating over the first metallic coating, wherein the first metallic coating inhibits diffusion of a metal from the second metallic coating into the metallic layer.

12. (ORIGINAL) The electronic structure of claim 11, further comprising:

- a wirebond interconnect coupled to the first conductive pad at the second metallic coating;

- an electronic assembly coupled to the wirebond interconnect;

- a solder ball coupled to the second conductive pad; and

- an electronic carrier coupled to the solder ball.

13. (ORIGINAL) The electronic structure of claim 12, wherein the metallic layer includes copper, wherein the first metallic coating includes nickel, wherein the metal of the second metallic coating is selected from the group consisting of gold and palladium, and wherein the wirebond interconnect includes a gold wire.

Claims 14-27. (CANCELED)

28. (CURRENTLY AMENDED) The electronic structure of claim [[6]] 1, further comprising:

- a first solder ball coupled to the first conductive pad;
- an electronic assembly coupled to the first solder ball;
- a second solder ball coupled to the second conductive pad; and
- an electronic carrier coupled to the second solder ball.

29. (PREVIOUSLY PRESENTED) The electronic structure of claim 28, wherein a diameter of the second solder ball is unequal to a diameter of the first solder ball.

30. (CURRENTLY AMENDED) The electronic structure of claim [[6]] 1, wherein the first conductive pad includes a metallic layer, and further comprising:

- a first metallic coating over the metallic layer; and
- a second metallic coating over the first metallic coating, wherein the first metallic coating inhibits diffusion of a metal from the second metallic coating into the metallic layer.

31. (PREVIOUSLY PRESENTED) The electronic structure of claim 30, further comprising:

- a wirebond interconnect coupled to the first conductive pad at the second metallic coating;
- an electronic assembly coupled to the wirebond interconnect;

a solder ball coupled to the second conductive pad; and
an electronic carrier coupled to the solder ball.

32. (PREVIOUSLY PRESENTED) The electronic structure of claim 31, wherein the metallic layer includes copper, wherein the first metallic coating includes nickel, wherein the metal of the second metallic coating is selected from the group consisting of gold and palladium, and wherein the wirebond interconnect includes a gold wire.

33. (PREVIOUSLY PRESENTED) The electronic structure of claim 3, wherein the first conductive pad includes a metallic layer, and further comprising:

a first metallic coating over the metallic layer; and

a second metallic coating over the first metallic coating, wherein the first metallic coating inhibits diffusion of a metal from the second metallic coating into the metallic layer.

34. (PREVIOUSLY PRESENTED) The electronic structure of claim 33, further comprising:

a wirebond interconnect coupled to the first conductive pad at the second metallic coating;

an electronic assembly coupled to the wirebond interconnect;

a solder ball coupled to the second conductive pad; and

an electronic carrier coupled to the solder ball.

35. (PREVIOUSLY PRESENTED) The electronic structure of claim 3, wherein the third circuit

line physically touches the first circuit line in direct surface-to-surface contact, and wherein the third circuit line physically touches the second circuit line in direct surface-to-surface contact.

36. (PREVIOUSLY PRESENTED) The electronic structure of claim 3, wherein the third circuit line physically touches the first circuit line in direct surface-to-surface contact.

37. (NEW) The electronic structure of claim 9, wherein the electronic assembly comprises a chip, and wherein the electronic carrier comprises a circuit card.

38. (NEW) The electronic structure of claim 12, wherein the electronic assembly comprises a chip, and wherein the electronic carrier comprises a circuit card.

39. (NEW) The electronic structure of claim 28, wherein the electronic assembly comprises a chip, and wherein the electronic carrier comprises a circuit card.

40. (NEW) The electronic structure of claim 31, wherein the electronic assembly comprises a chip, and wherein the electronic carrier comprises a circuit card.

41. (NEW) The electronic structure of claim 34, wherein the electronic assembly comprises a chip, and wherein the electronic carrier comprises a circuit card.